```
          1                  20                  30                  40                  50                  60
TCATGTTTCA[redacted]GGAACGACG AATTTATCCC GTCGTTTCT[redacted]CTTTCCGTT TTAACTCATA

         70                  80                  90                 100                 110                 120
TCTCTTCCTG GATCCTTCAG AGCTCTTGTC AATTCCTCAC GTTTTTTTTT GTTTTTTCGT

        130                 140                 150                 160                 170                 180
CGTTTAATTG TGGAAACACA TATCCGTCCT CTTTGAAACA GCATCAGAAA ACTTTCTGCT

        190                 200                 210                 220                 230                 240
CTCCGTGTCC TTCTACTTAC TCTGATTGCC TTAGTTAGTC ACATCGCAAG CAACAACTAA

        250                 260                 270                 280                 290                 300
CTGCCAATGG GAGGAGCCAG TTGGAGCAGG GTGCGTGCTC GGTGCTCTTT TCAGAAGGTT

        310                 320                 330                 340                 350                 360
TTCTCTTGTG CCAGCATGCT TTTTTGAGGC TGTGTCATCA CAATGAACAT GTGTGAGTTC

        370                 380                 390                 400                 410                 420
ATCCGTCTGG ATTATTCTTT TTCTTACGTC TTCTGAGTAC TTCATACTTT CCAAATTTTT

        430                 440                 450                 460                 470                 480
CAACTGAACT TTTCTTCTTT TCTCATTGAA GTGGTTTGGT TTTGGTCGCG TGATCAACGG

        490                 500                 510                 520                 530                 540
ATCCTACTTT TTTGAAACAA AATGTTTTTG AAGTTTCACA GACTGATTTC GGGGTTTTTT

        550                 560                 570                 580                 590                 600
CAAAGAATAT ATTCCCTCTC GAGCAAGAGA AAATTCCAGA AAATAGTAGT TTTTTTCAAT

        610                 620                 630                 640                 650                 660
TAGTCGTTTC ATTTGTACTA GCTAAAAAAC TTGCAACTTA TGGCTTTAAA ACATGTGTTG

        670                 680                 690                 700                 710                 720
GCTTCATACA AAAACATTTA ACTAGTGTTT TTCCAGTTTT GTGTTCGTTT CATTTTCTCA

        730                 740                 750                 760                 770                 780
CCAAACTGAC AATAATTACT TTCTGTGAAC GTGTTTTGTA GGCAAGCTCC CGAATATTTT

        790                 800                 810                 820                 830                 840
TTTCTCTTCT CACGTCTTGT TATTTTCTCG ATTTTATTTT CTGAATCTGT GCGGTTTTCA

        850                 860                 870                 880                 890                 900
ATCAATTTGA TTGCGATAAT TATTCTATCA GAAATATATT TTCAGAAATC CAAATACTCC

        910                 920                 930                 940                 950                 960
AGGTGCCAAT GCGGTGAAAG AAAATTATGA AGTTTATTCC TGAAATCACA CTACTCTTGC

        970                 980                 990                1000                1010                1020
TTTTATTTGT ACACTCTACA CAGGTTAGTT GGTTGATTCT AGATCTCTTG CCTCCTAGCT

       1030                1040                1050                1060                1070                1080
TGCAAGGATA ATATAATTGA ATTGTTTTTG AGGAGTGCAA AGATTGAATA GTTTTCTATA

       1090                1100                1110                1120                1130                1140
TTTAGGCTAA AGGAAAACGA CGGAAATGTC CGGAGGGTGC GTGGTCGGAA GGAAAGATTA
```

Fig. 1
Page 1

1150 1160 1170 1180 1190 1200
TGAACACGAT CATGAGCAAC TACACGAAAA TGTTGCCCGA [illegible]CGGAGGAC AGCGTACAAG

1210 1220 1230 1240 1250 1260
TTAATATTGA GATTCATGTA CAGGTTGGTA GACTCTATAA TTGCACACCA ATATGTGAAA

1270 1280 1290 1300 1310 1320
GTTTTCTTTA AAATTAAACT GCTGTAAATG ACTTTTGAAT AAGTTTATCA GATAGAAATT

1330 1340 1350 1360 1370 1380
GTCTGAACTT TTCGATTCAA ACTTTCCGAA CTTCAAAGCG GTTCCAAATT ACTCACTTCC

1390 1400 1410 1420 1430 1440
ATTTATCTCT TTGCTACAAT TTCTCCCACA AAGCCTTTTT CTTCATTTAA CGTTCTTTTT

1450 1460 1470 1480 1490 1500
TATGTCGTTG TTCTTACAAA CAATTTCGTC TCCTTGATGA ACTGCTTGAA CTGAGAATAG

1510 1520 1530 1540 1550 1560
TCACATGAGG ATAAATTTGA TGGAATGACA AGTTTTGTGC CCAGAAGGCA GTTTTGCACT

1570 1580 1590 1600 1610 1620
GAACTTGTTC AGTTGCAGAC ACATCTCAAA ACACAGAAGA TGAGTGGAAA ACTAGTGAGA

1630 1640 1650 1660 1670 1680
GACTGCCAAA AGTCGAAGGG ATAATGAAAA TTTGTTGCAA ATGAATTCTG CGAAGTTATG

1690 1700 1710 1720 1730 1740
TGAAAAATTA TTGGATTGGG AGTTGTGGGA GTGAAGAGAT GGGTCAAAAG CCATCAATCT

1750 1760 1770 1780 1790 1800
TGAATGCTTC GGTCAAAGAT TTGTTTCTCA TATGTTTACA ACACTGAAAA CAATCTATCC

1810 1820 1830 1840 1850 1860
TAGAAATGTT TGAACCACCC TCTAAAGTCC TTCCGTATAT TTTTTCATCT TTATACCGAC

1870 1880 1890 1900 1910 1920
CAGAATTCAA GAGTTGTTTG AAATAACTTC CTCTTTTTTG GAGAATATGT ACTCAGATTT

1930 1940 1950 1960 1970 1980
TTACATTCAA AATTTATATA TTTTCAAATA GAAAAAGTGC CAAGTACCAG AAACTTTTAT

1990 2000 2010 2020 2030 2040
CAAGTTGGCG GCACTTTGGA GAGTGAATTT GATGAAAAAG TGTTTGATAA GTTTGTCGGG

2050 2060 2070 2080 2090 2100
CAAACTGGTC CCCTGGGTGG GGAAATGGTG GCATTTTTGG AAACATTTTC ATAGTCGAAG

2110 2120 2130 2140 2150 2160
AAGTGGAACA AGAAAATTGG AAAATAGAGA TACATATGTA TATGAAAATA GAATTGAACA

2170 2180 2190 2200 2210 2220
GGAACTTATT TTTATTTTCA GGATATGGGA AGCTTGAATG AAATATCATC CGACTTTGAA

2230 2240 2250 2260 2270 2280
ATTGACATTT TATTCACTCA ACTGTGGCAT GACTCGGCAC TTTCTTTTGC TCATCTTCCG

Fig. 1
Page 2

2290 2300 2310 2320 2330 2340
GCTTGTAAGC GGTAAGAAAT CTTTGTATTA GAAGGAAAA ATATTTAAAT TAATGAAATT

2350 2360 2370 2380 2390 2400
TCAGAAATAT CACAATGGAA ACACGACTTT TACCTAAGAT TTGGTCTCCA AACACGTGTA

2410 2420 2430 2440 2450 2460
TGATTAATTC AAAACGAACA ACCGTCCATG CATCACCATC GGAAAATGTG ATGGTTATTC

2470 2480 2490 2500 2510 2520
TGTACGAGGT ATGATTTTTG ATTTTGTGAC GTCACAAACA GAGCATGTCT AAGGGCATGT

2530 2540 2550 2560 2570 2580
TGTAGCAAGA AAAAAACGGA TTCTTGTCTC TGTCGACGTT TCCTAAGTAT TGTGAATTAT

2590 2600 2610 2620 2630 2640
TTATAATACA TCACTCTAAT TACGTGAATA CTTACACCTT TAACTGGGTG AAGGATAAAA

2650 2660 2670 2680 2690 2700
TAGAGAAGGA GACGTTGAAA AAGCTCTTCG GTAGATTAAA GAGTCTAGAA TCGACATATG

2710 2720 2730 2740 2750 2760
TATTCATGTT TCTCGGTTCA GGGAAATAAG TGATTTTGGC GAAAAAGAGT TAGACGACAT

2770 2780 2790 2800 2810 2820
TTTTTAGAAA ACTAAAACTA TATTCTCGAA CCCAAATCAG TCTAATGGTT TTCAGCAAAA

2830 2840 2850 2860 2870 2880
AGTATGAAAT ATACAATGTT TGTTTCAGAA TACCCAGTAC AAAATTTGAA GTTTTTCAGA

2890 2900 2910 2920 2930 2940
ATGGAACAGT CTGGATTAAC CATCGTCTTA GTGTCAAATC ACCTTGCAAT TTGGATCTGC

2950 2960 2970 2980 2990 3000
GACAGTTTCC TTTCGATACT CAAACTTGCA TATTAATCTT TGAATCCTAT AGTCATAACT

3010 3020 3030 3040 3050 3060
CAGAAGAAGT TGAACTTCAT TGGATGGAAG AAGCTGTCAC ATTAATGAAG CCAATTCAAC

3070 3080 3090 3100 3110 3120
TTCCTGACTT TGATATGGTT CATTATTCAA CTAAAAAGGA AACTTTACTC TATCCAAACG

3130 3140 3150 3160 3170 3180
GGTACTGGGA TCAGCTTCAA GTTACTTTCA CTTTCAAACG ACGATATGGA TTCTATATTA

3190 3200 3210 3220 3230 3240
TTCAAGCCTA TGTTCCAACA TATCTTACAA TCATTGTATC TTGGGTTTCA TTCTGCATGG

3250 3260 3270 3280 3290 3300
AACCAAAAGC TCTGCCGGCA AGAACAACTG TCGGAATCTC ATCTCTTCTA GCTCTTACTT

3310 3320 3330 3340 3350 3360
TCCAGTTTGG AAATATTTTG AAAAATCTTC CAAGGGTTTC ATATGTGAAA GGTTTGTTTT

3370 3380 3390 3400 3410 3420
TTTTCTTTTT CAAACAAATA AAAAAAAAGA TAAACAAATA TTTGTTTCAG CAATGGATGT

Fig. 1

3430 3440 3450 3460 3470 3480
GTGGATGCTT GGATGCATAT CATTTGTCTT CGGAACCATG GTAGAATTGG CATTTGTTTG

3490 3500 3510 3520 3530 3540
TTACATTTCC CGTTGTCAGA ACAGCGTAAG AAAGTGAGTT GGCATAAGAG TTTTCTCACG

3550 3560 3570 3580 3590 3600
TGGAGGGAAG TAATTAAATT TTGGGTGTCA TATGAAAATA TCAAAAACAA TATCAGGAAA

3610 3620 3630 3640 3650 3660
TTGAATTTCA CTATGATTTC GTAGTAAACA AATTACAGCG CGGAACGACG ACGGGAACGA

3670 3680 3690 3700 3710 3720
ATGAGAAATT CTCAGGTGTG GGCAAACGGA TCGTGTAGAA CTAGAAGCAA CGGGTATGCA

3730 3740 3750 3760 3770 3780
AACGGGGGAT CTGTAATCTC ACATTATCAT CCAACAAGCA ATGGAAATGG GAATAATAAT

3790 3800 3810 3820 3830 3840
CGACATGATA CACCTCAAGT TACTGGAAGG TTAGCAATCT CTATGATAGC ATTTATCAAT

3850 3860 3870 3880 3890 3900
TATTAAAGAA CTCTGGAATT AGTTTTTAAA GTATAAATAA ATCTCTATTT CTTGCGACCT

3910 3920 3930 3940 3950 3960
ACATTGAACT TAATAGTTAT GTTTTACAGA GGATCACTTC ATCGAAACGG GCCACCATCT

3970 3980 3990 4000 4010 4020
CCATTAAACC TTCAAATGAC TACATTTGAT TCGGAGATCC CTCTGACTTT TGATCAGGTG

4030 4040 4050 4060 4070 4080
AGTCTTACAT TGAGTTCAAA CTTTTTGAAT TTAAGCGTTC TATCTGATAA AGTTCTTCGG

4090 4100 4110 4120 4130 4140
TGGTTTTATA ATTTTTGATT CATAAACTTA CCCACTCCTT TCTCACTAAC ATTTTACCCT

4150 4160 4170 4180 4190 4200
GTTCAGCTGC CAGTTTCCAT GGAATCCGAT AGACCCCTGA TTGAAGAGGT AACTGTGAAA

4210 4220 4230 4240 4250 4260
GTAGTCAATT AATTCCCTGT GTTTCTACCC CACTCAATCC TTTTGTATTT TTTGTTCAGT

4270 4280 4290 4300 4310 4320
CTATCCACTA TCAATGTCTT ATCACCTCTA GATACTGTTT AGAAGAAAAT ATTGTTCACA

4330 4340 4350 4360 4370 4380
GTTATGGAAA TCACATATAC TTTGTTCTGG AATTGTATAT GTATGCTTTG AAAAAGCACA

4390 4400 4410 4420 4430 4440
TTAGAATACT ACAAACATTA GTTTCCATCA GATTTTTGAT TTATCAAAAC CGTTATATTA

4450 4460 4470 4480 4490 4500
GACACTCTTA AGTTATCATA TTCTAATTTC CAAGAATGTT ATATTTTGAA GAAGCCGGTG

4510 4520 4530 4540 4550 4560
ATTGTCAAAA AGATTGAAAA CTCCGAGTTT CTATATATGC GAAATTTTCA CTTCAGCCCA

Fig. 1

```
      457        4580        4590        460         4610        4620
CACACACACA CACACATTCA CGAAACTTTG TGTTGTTTAT GTTACTTATA TGTTATCTTT

     4630        4640        4650        4660        4670        4680
TCTGTCTGAT CATGGTTTTC GGACTGAAAT TGTGTTAATC GGAAGTTATA TGTGAGCCAC

     4690        4700        4710        4720        4730        4740
ATTGATTAAA CCTGTGAGAG ATGCCCATTT GTACTCATTT TACGACTGTC TCATGTCCAA

     4750        4760        4770        4780        4790        4800
ACACCATGTT TATTGTAATT ACCAGGCTAC TATTTGCAGA TGCGATCAAC ATCACCACCT

     4810        4820        4830        4840        4850        4860
CCACCATCTG GATGTCTGGC CAGATTCCAT CCGGAAGCAG TGGACAAATT CTCCATTGTA

     4870        4880        4890        4900        4910        4920
GCTTTTCCAT TGGCATTTAC AATGTTTAAT GTTAGTTAAT CCACAGTTAA AAATTCCCAT

     4930        4940        4950        4960        4970        4980
AATCATAAAT ATCTCGACTT TTCAGCTTGT CTACTGGTGG CACTATTTGT CTCAAACTTT

     4990        5000        5010        5020        5030        5040
CGATCAAAAC TATCAGTGAT TGAAGTTTAT CCCTTTTAAT TCCAATAATT CACAGTTGCC

     5050        5060        5070        5080        5090        5100
GGTATCTACC TCCATTCTTT TCCGATGATT CGCAGTTTTT CACAGGGTTC AAATGTATCT

     5110        5120        5130        5140        5150        5160
CGTTCAATCT TTTTATGGTT ATTTCTCTTG AATGTCCATT TTAATATTTA TAGAACACTT

     5170        5180        5190        5200        5210        5220
TTATGTACAT TGTGTTGGTA TTCAATTCGA AAAACAATGA AATTTATTTC TAAATAACTG

     5230        5240        5250        5260        5270        5280
CGTTTCTGGG GTTTCTATCA GCACTTACTA GCTGACAAAA ACTTTTCCGT ATTCGGAATT

     5290        5300        5310        5320        5330        5340
AGATTTTTAT GCAAGCAATG TTTCATTTTT ACACAGTATA GTATTTATTC TTACTTTTGA

     5350        5360        5370        5380        5390        5400
TTATATTGCT CGCACCCTAA ATGACAGGTA TTAGAAATTA ACCGCTTTTC AGAGTATTTT

     5410        5420        5430        5440        5450        5460
TAATCTTCTT AGTACTAGTT TAGTTCTTTA AATAAGAAAC CATCTAGTTT TTCATTATCA

     5470        5480        5490        5500        5510        5520
CTCAACTTCA GTCGGACAAA TTTTAAATTT TTTACTCGAT AAAAAAATTT TATAATTCAG

     5530        5540        5550
ACAAATTATG TCTTTCTCATT TTTGATCGCT
```

Fig. 1
Page 5

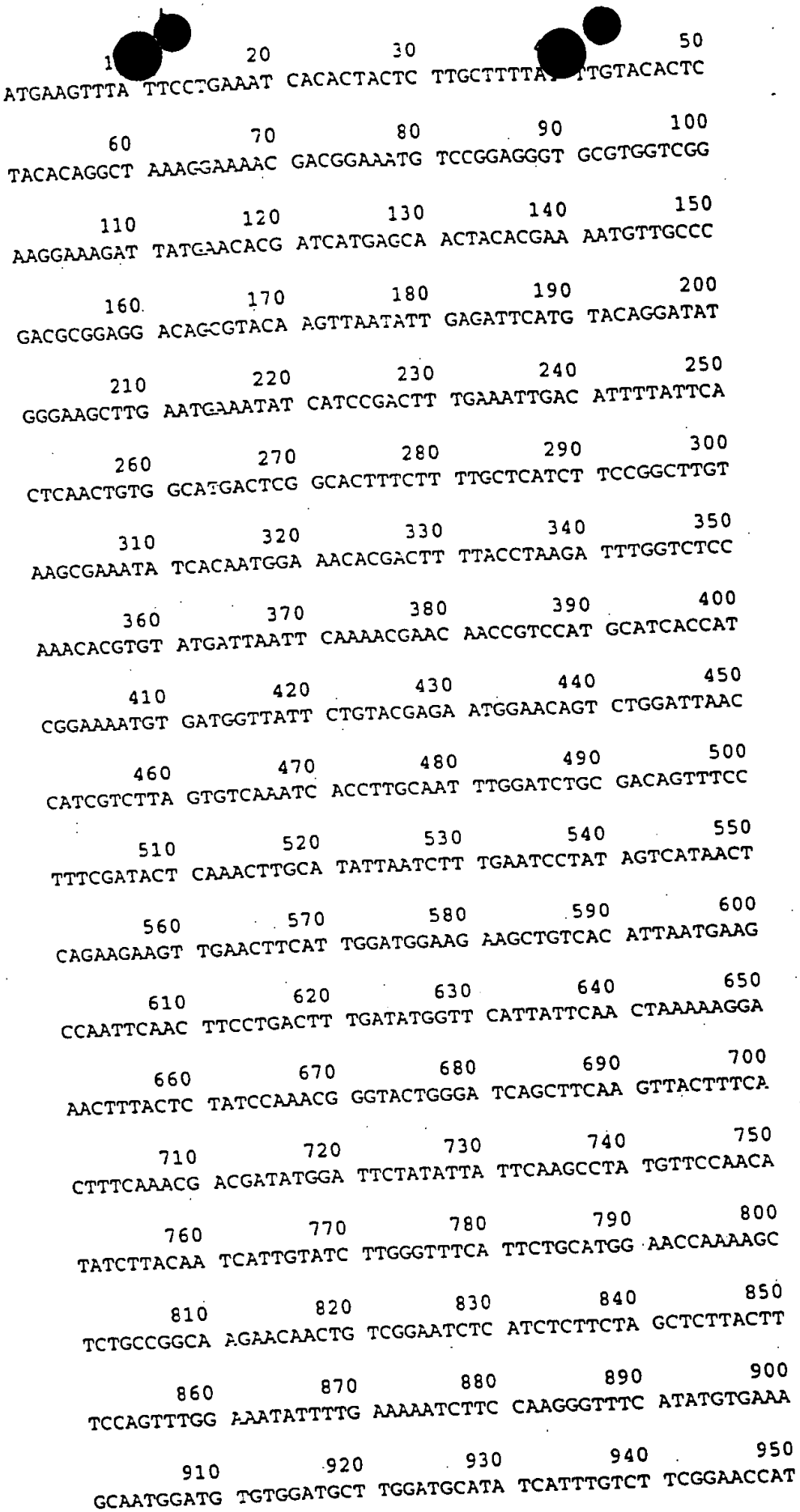


Fig. 2
Page 1

960 970 980 990 1000
GGTAGAATT CATTTGTTT GTTACATTTC CCGTTGTC AACAGCGTAA

1010 1020 1030 1040 1050
GAAACGCGGA ACGACGACGG GAACGAATGA GAAATTCTCA GGTGTGGGCA

1060 1070 1080 1090 1100
AACGGATCGT GTAGAACTAG AAGCAACGGG TATGCAAACG GGGGATCTGT

1110 1120 1130 1140 1150
AATCTCACAT TATCATCCAA CAAGCAATGG AAATGGGAAT AATAATCGAC

1160 1170 1180 1190 1200
ATGATACACC TCAAGTTACT GGAAGAGGAT CACTTCATCG AAACGGGCCA

1210 1220 1230 1240 1250
CCATCTCCAT TAAACCTTCA AATGACTACA TTTGATTCGG AGATCCCTCT

1260 1270 1280 1290 1300
GACTTTTGAT CAGCTGCCAG TTTCCATGGA ATCCGATAGA CCCCTGATTG

1310 1320 1330 1340 1350
AAGAGATGCG ATCAACATCA CCACCTCCAC CATCTGGATG TCTGGCCAGA

1360 1370 1380 1390 1400
TTCCATCCGG AAGCAGTGGA CAAATTCTCC ATTGTAGCTT TTCCATTGGC

1410 1420 1430 1440 1450
ATTTACAATG TTTAATCTTG TCTACTGGTG GCACTATTTG TCTCAAACTT

1460 1470
TCGATCAAAA CTATCAGTGA

Fig. 2
Page 2

10	20	30	40	50
MKFIPEITL[illegible]	[illegible]LLFVHSTCA	KGKRRKCPEG	AWSEGKIM[illegible]	[illegible]MSNYTKMLP

60	70	80	90	100
DAEDSVQVNI	EIHVQDMGSL	NEISSDFEID	ILFTQLWHDS	ALSFAHLPAC

110	120	130	140	150
KRNITMETRL	LPKIWSPNTC	MINSKRTTVH	ASPSENVMVI	LYENGTVWIN

160	170	180	190	200
HRLSVKSPCN	LDLRQFPFDT	QTCILIFESY	SHNSEEVELH	WMEEAVTLMK

210	220	230	240	250
PIQLPDFDMV	HYSTKKETLL	YPNGYWDQLQ	VTFTFKRRYG	FYIIQAYVPT

260	270	280	290	300
YLTIIVSWVS	FCMEPKALPA	RTTVGISSLL	ALTFQFGNIL	KNLPRVSYVK

310	320	330	340	350
AMDVWMLGCI	SFVFGTMVEL	AFVCYISRCQ	NSVRNAERRR	ERMRNSQVWA

360	370	380	390	400
NGSCRTRSNG	YANGGSVISH	YHPTSNGNGN	NNRHDTPQVT	GRGSLHRNGP

410	420	430	440	450
PSPLNLQMTT	FDSEIPLTFD	QLPVSMESDR	PLIEEMRSTS	PPPPSGCLAR

460	470	480		
FHPEAVDKFS	IVAFPLAFTM	FNLVYWWHYL	SQTFDQNYQ	

Fig. 3

MOD-1 is similar to ligand-gated ion channels

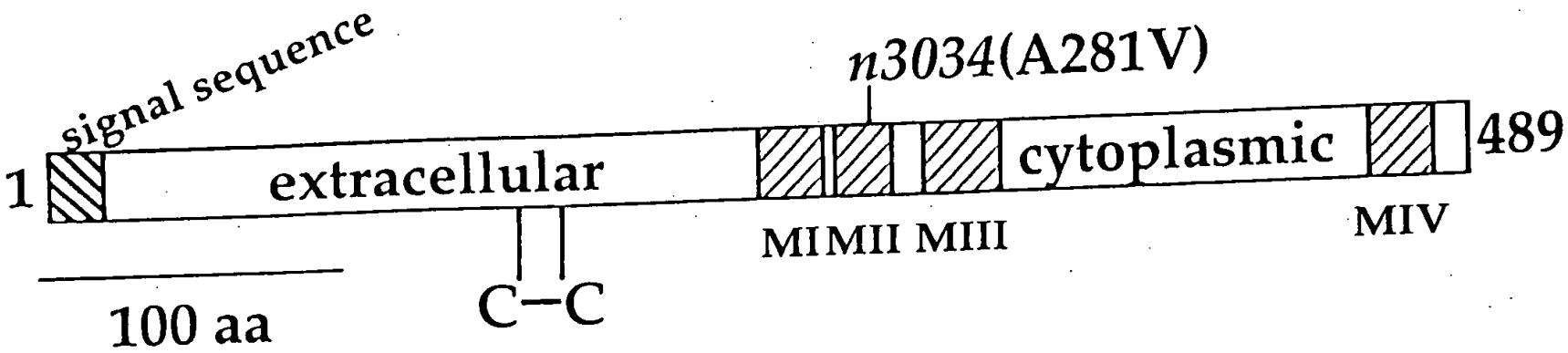


Fig. 4

ok103 is a 4135 bp deletion allele of *mod-1*

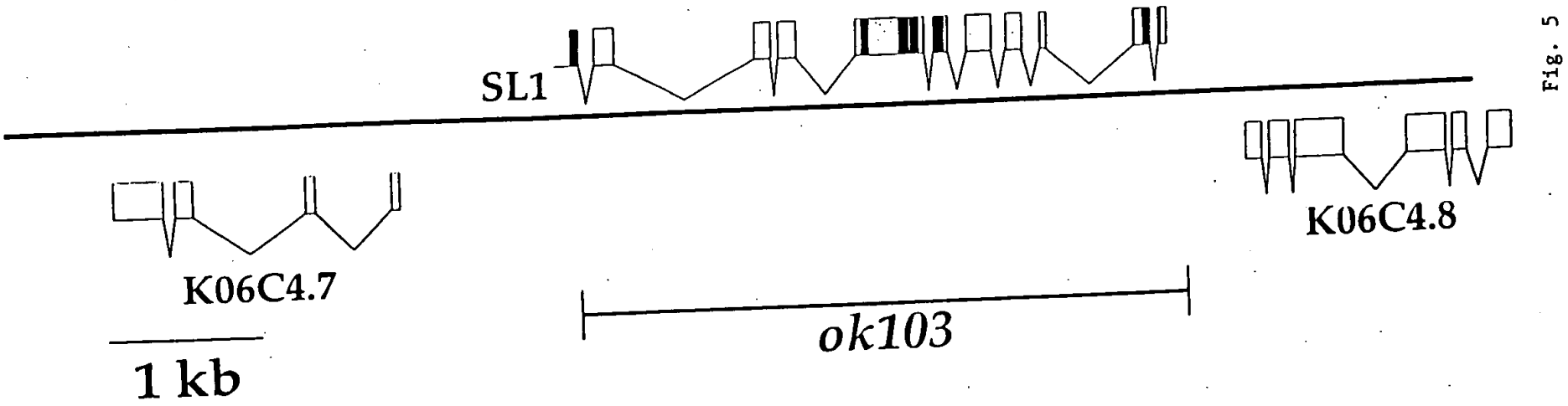


Fig. 5

```
        10         20         30         40         50         60
TCATGTTTCA CGGAACGACG AATTTATCCC GTCGTTTCTT CCTTTCCGTT TTAACTCATA

        70         80         90        100        110        120
TCTCTTCCTG GATCCTTCAG AGCTCTTGTC AATTCCTCAC GTTTTTTTTT GTTTTTTCGT

       130        140        150        160        170        180
CGTTTAATTG TGGAAACACA TATCCGTCCT CTTTGAAACA GCATCAGAAA ACTTTCTGCT

       190        200        210        220        230        240
CTCCGTGTCC TTCTACTTAC TCTGATTGCC TTAGTTAGTC ACATCGCAAG CAACAACTAA

       250        260        270        280        290        300
CTGCCAATGG GAGGAGCCAG TTGGAGCAGG GTGCGTGCTC GGTGCTCTTT TCAGAAGGTT

       310        320        330        340        350        360
TTCTCTTGTG CCAGCATGCT TTTTTGAGGC TGTGTCATCA CAATGAACAT GTGTGAGTTC

       370        380        390        400        410        420
ATCCGTCTGG ATTATTCTTT TTCTTACGTC TTCTGAGTAC TTCATACTTT CCAAATTTTT

       430        440        450        460        470        480
CAACTGAACT TTTCTTCTTT TCTCATTGAA GTGGTTTGGT TTTGGTCGCG TGATCAACGG

       490        500        510        520        530        540
ATCCTACTTT TTTGAAACAA AATGTTTTTG AAGTTTCACA GACTGATTTC GGGGTTTTTT

       550        560        570        580        590        600
CAAAGAATAT ATTCCCTCTC GAGCAAGAGA AAATTCCAGA AAATAGTAGT TTTTTTCAAT

       610        620        630        640        650        660
TAGTCGTTTC ATTTGTACTA GCTAAAAAAC TTGCAACTTA TGGCTTTAAA ACATGTGTTG

       670        680        690        700        710        720
GCTTCATACA AAAACATTTA ACTAGTGTTT TTCCAGTTTT GTGTTCGTTT CATTTTCTCA

       730        740        750        760        770        780
CCAAACTGAC AATAATTACT TTCTGTGAAC GTGTTTTGTA GGCAAGCTCC CGAATATTTT

       790        800        810        820        830        840
TTTCTCTTCT CACGTCTTGT TATTTTCTCG ATTTTATTTT CTGAATCTGT GCGGTTTTCA

       850        860        870        880        890        900
ATCAATTTGA TTGCGATAAT TATTCTATCA GAAATATATT TTCAGAAATC CAAATACTCC

       910        920        930        940        950        960
AGGTGCCAAT GCGGTGAAAG AAAATTATGA AGTTTATTCC TGAAATCACA CTACTCTTGC

       970        980        990       1000       1010       1020
TTTTATTTGT ACACTCTACA CAGGTTAGTT TCTCTTGAAT GTCCATTTTA ATATTTATAG

      1030       1040       1050       1060       1070       1080
AACACTTTTA TGTACATTGT GTTGGTATTC AATTCGAAAA ACAATGAAAT TTATTTCTAA

      1090       1100       1110       1120       1130       1140
ATAACTGCGT TTCTGGGGTT TCTATCAGCA CTTACTAGCT GACAAAAACT TTTCCGTATT
```

Fig. 6
Page 1

```
      1150       1160       1170       1180       1190       1200
CGGAATTAGA TTTTTATGCA AGCAATGTTT CATTTTTACA CAGTATAGTA TTTATTCTTA

      1210       1220       1230       1240       1250       1260
CTTTTGATTA TATTGCTCGC ACCCTAAATG ACAGGTATTA GAAATTAACC GCTTTTCAGA

      1270       1280       1290       1300       1310       1320
GTATTTTTAA TCTTCTTAGT ACTAGTTTAG TTCTTTAAAT AAGAAACCAT CTAGTTTTTC

      1330       1340       1350       1360       1370       1380
ATTATCACTC AACTTCAGTC GGACAAATTT TAAATTTTTT ACTCGATAAA AAAATTTTAT

      1390       1400       1410
AATTCAGACA AATTATGTCT TCTCATTTTT GATCGCT
```

Fig. 6

10 20 30 40 50 60
TCATGTTTCA CGGAACGACG AATTTATCCC GTCGTTTCTT [illegible]TTTCCGTT TTAACTCATA

70 80 90 100 110 120
TCTCTTCCTG GATCCTTCAG AGCTCTTGTC AATTCCTCAC GTTTTTTTTT GTTTTTTCGT

130 140 150 160 170 180
CGTTTAATTG TGGAAACACA TATCCGTCCT CTTTGAAACA GCATCAGAAA ACTTTCTGCT

190 200 210 220 230 240
CTCCGTGTCC TTCTACTTAC TCTGATTGCC TTAGTTAGTC ACATCGCAAG CAACAACTAA

250 260 270 280 290 300
CTGCCAATGG GAGGAGCCAG TTGGAGCAGG GTGCGTGCTC GGTGCTCTTT TCAGAAGGTT

310 320 330 340 350 360
TTCTCTTGTG CCAGCATGCT TTTTTGAGGC TGTGTCATCA CAATGAACAT GTGTGAGTTC

370 380 390 400 410 420
ATCCGTCTGG ATTATTCTTT TTCTTACGTC TTCTGAGTAC TTCATACTTT CCAAATTTTT

430 440 450 460 470 480
CAACTGAACT TTTCTTCTTT TCTCATTGAA GTGGTTTGGT TTTGGTCGCG TGATCAACGG

490 500 510 520 530 540
ATCCTACTTT TTTGAAACAA AATGTTTTTG AAGTTTCACA GACTGATTTC GGGGTTTTTT

550 560 570 580 590 600
CAAAGAATAT ATTCCCTCTC GAGCAAGAGA AAATTCCAGA AAATAGTAGT TTTTTTCAAT

610 620 630 640 650 660
TAGTCGTTTC ATTTGTACTA GCTAAAAAAC TTGCAACTTA TGGCTTTAAA ACATGTGTTG

670 680 690 700 710 720
GCTTCATACA AAAACATTTA ACTAGTGTTT TTCCAGTTTT GTGTTCGTTT CATTTTCTCA

730 740 750 760 770 780
CCAAACTGAC AATAATTACT TTCTGTGAAC GTGTTTTGTA GGCAAGCTCC CGAATATTTT

790 800 810 820 830 840
TTTCTCTTCT CACGTCTTGT TATTTTCTCG ATTTTATTTT CTGAATCTGT GCGGTTTTCA

850 860 870 880 890 900
ATCAATTTGA TTGCGATAAT TATTCTATCA GAAATATATT TTCAGAAATC CAAATACTCC

910 920 930 940 950 960
AGGTGCCAAT GCGGTGAAAG AAAATTATGA AGTTTATTCC TGAAATCACA CTACTCTTGC

970 980 990 1000 1010 1020
TTTTATTTGT ACACTCTACA CAGGTTAGTT GGTTGATTCT AGATCTCTTG CCTCCTAGCT

1030 1040 1050 1060 1070 1080
TGCAAGGATA ATATAATTGA ATTGTTTTTG AGGAGTGCAA AGATTGAATA GTTTTCTATA

1090 1100 1110 1120 1130 1140
TTTAGGCTAA AGGAAAACGA CGGAAATGTC CGGAGGGTGC GTGGTCGGAA GGAAAGATTA

Fig. 7

1150 1160 1170 1180 1190 1200
TGAACACGAT CATGAGCAAC TACACGAAAA TGTTGCCCGA GCGGAGGAC AGCGTACAAG

1210 1220 1230 1240 1250 1260
TTAATATTGA GATTCATGTA CAGGTTGGTA GACTCTATAA TTGCACACCA ATATGTGAAA

1270 1280 1290 1300 1310 1320
GTTTTCTTTA AAATTAAACT GCTGTAAATG ACTTTTGAAT AAGTTTATCA GATAGAAATT

1330 1340 1350 1360 1370 1380
GTCTGAACTT TTCGATTCAA ACTTTCCGAA CTTCAAAGCG GTTCCAAATT ACTCACTTCC

1390 1400 1410 1420 1430 1440
ATTTATCTCT TTGCTACAAT TTCTCCCACA AAGCCTTTTT CTTCATTTAA CGTTCTTTTT

1450 1460 1470 1480 1490 1500
TATGTCGTTG TTCTTACAAA CAATTTCGTC TCCTTGATGA ACTGCTTGAA CTGAGAATAG

1510 1520 1530 1540 1550 1560
TCACATGAGG ATAAATTTGA TGGAATGACA AGTTTTGTGC CCAGAAGGCA GTTTTGCACT

1570 1580 1590 1600 1610 1620
GAACTTGTTC AGTTGCAGAC ACATCTCAAA ACACAGAAGA TGAGTGGAAA ACTAGTGAGA

1630 1640 1650 1660 1670 1680
GACTGCCAAA AGTCGAAGGG ATAATGAAAA TTTGTTGCAA ATGAATTCTG CGAAGTTATG

1690 1700 1710 1720 1730 1740
TGAAAAATTA TTGGATTGGG AGTTGTGGGA GTGAAGAGAT GGGTCAAAAG CCATCAATCT

1750 1760 1770 1780 1790 1800
TGAATGCTTC GGTCAAAGAT TTGTTTCTCA TATGTTTACA ACACTGAAAA CAATCTATCC

1810 1820 1830 1840 1850 1860
TAGAAATGTT TGAACCACCC TCTAAAGTCC TTCCGTATAT TTTTTCATCT TTATACCGAC

1870 1880 1890 1900 1910 1920
CAGAATTCAA GAGTTGTTTG AAATAACTTC CTCTTTTTTG GAGAATATGT ACTCAGATTT

1930 1940 1950 1960 1970 1980
TTACATTCAA AATTTATATA TTTTCAAATA GAAAAAGTGC CAAGTACCAG AAACTTTTAT

1990 2000 2010 2020 2030 2040
CAAGTTGGCG GCACTTTGGA GAGTGAATTT GATGAAAAAG TGTTTGATAA GTTTGTCGGG

2050 2060 2070 2080 2090 2100
CAAACTGGTC CCCTGGGTGG GGAAATGGTG GCATTTTTGG AAACATTTTC ATAGTCGAAG

2110 2120 2130 2140 2150 2160
AAGTGGAACA AGAAAATTGG AAAATAGAGA TACATATGTA TATGAAAATA GAATTGAACA

2170 2180 2190 2200 2210 2220
GGAACTTATT TTTATTTTCA GGATATGGGA AGCTTGAATG AAATATCATC CGACTTTGAA

2230 2240 2250 2260 2270 2280
ATTGACATTT TATTCACTCA ACTGTGGCAT GACTCGGCAC TTTCTTTTGC TCATCTTCCG

Fig. 7
Page 2

2290 2300 2310 2320 2330 2340
GCTTGTAAGC GGTAAGAAAT CTTTGTATTA GAAGGGAAAA TTATTTAAAT TAATGAAATT

2350 2360 2370 2380 2390 2400
TCAGAAATAT CACAATGGAA ACACGACTTT TACCTAAGAT TTGGTCTCCA AACACGTGTA

2410 2420 2430 2440 2450 2460
TGATTAATTC AAAACGAACA ACCGTCCATG CATCACCATC GGAAAATGTG ATGGTTATTC

2470 2480 2490 2500 2510 2520
TGTACGAGGT ATGATTTTTG ATTTTGTGAC GTCACAAACA GAGCATGTCT AAGGGCATGT

2530 2540 2550 2560 2570 2580
TGTAGCAAGA AAAAAACGGA TTCTTGTCTC TGTCGACGTT TCCTAAGTAT TGTGAATTAT

2590 2600 2610 2620 2630 2640
TTATAATACA TCACTCTAAT TACGTGAATA CTTACACCTT TAACTGGGTG AAGGATAAAA

2650 2660 2670 2680 2690 2700
TAGAGAAGGA GACGTTGAAA AAGCTCTTCG GTAGATTAAA GAGTCTAGAA TCGACATATG

2710 2720 2730 2740 2750 2760
TATTCATGTT TCTCGGTTCA GGGAAATAAG TGATTTTGGC GAAAAAGAGT TAGACGACAT

2770 2780 2790 2800 2810 2820
TTTTTAGAAA ACTAAAACTA TATTCTCGAA CCCAAATCAG TCTAATGGTT TTCAGCAAAA

2830 2840 2850 2860 2870 2880
AGTATGAAAT ATACAATGTT TGTTTCAGAA TACCCAGTAC AAAATTTGAA GTTTTTCAGA

2890 2900 2910 2920 2930 2940
ATGGAACAGT CTGGATTAAC CATCGTCTTA GTGTCAAATC ACCTTGCAAT TTGGATCTGC

2950 2960 2970 2980 2990 3000
GACAGTTTCC TTTCGATACT CAAACTTGCA TATTAATCTT TGAATCCTAT AGTCATAACT

3010 3020 3030 3040 3050 3060
CAGAAGAAGT TGAACTTCAT TGGATGGAAG AAGCTGTCAC ATTAATGAAG CCAATTCAAC

3070 3080 3090 3100 3110 3120
TTCCTGACTT TGATATGGTT CATTATTCAA CTAAAAAGGA AACTTTACTC TATCCAAACG

3130 3140 3150 3160 3170 3180
GGTACTGGGA TCAGCTTCAA GTTACTTTCA CTTTCAAACG ACGATATGGA TTCTATATTA

3190 3200 3210 3220 3230 3240
TTCAAGCCTA TGTTCCAACA TATCTTACAA TCATTGTATC TTGGGTTTCA TTCTGCATGG

3250 3260 3270 3280 3290 3300
AACCAAAAGC TCTGCCGGCA AGAACAACTG TCGGAATCTC ATCTCTTCTA GTTCTTACTT

3310 3320 3330 3340 3350 3360
TCCAGTTTGG AAATATTTTG AAAAATCTTC CAAGGGTTTC ATATGTGAAA GGTTTGTTTT

3370 3380 3390 3400 3410 3420
TTTTCTTTTT CAAACAAATA AAAAAAAAGA TAAACAAATA TTTGTTTCAG CAATGGATGT

Fig. 7
Page 3

3430 3440 3450 3460 3470 3480
GTGGATGCTT GGATGCATAT CATTTGTCTT CGGAACCATG GTAGAATTGG CATTTGTTTG

3490 3500 3510 3520 3530 3540
TTACATTTCC CGTTGTCAGA ACAGCGTAAG AAAGTGAGTT GGCATAAGAG TTTTCTCACG

3550 3560 3570 3580 3590 3600
TGGAGGGAAG TAATTAAATT TTGGGTGTCA TATGAAAATA TCAAAAACAA TATCAGGAAA

3610 3620 3630 3640 3650 3660
TTGAATTTCA CTATGATTTC GTAGTAAACA AATTACAGCG CGGAACGACG ACGGGAACGA

3670 3680 3690 3700 3710 3720
ATGAGAAATT CTCAGGTGTG GGCAAACGGA TCGTGTAGAA CTAGAAGCAA CGGGTATGCA

3730 3740 3750 3760 3770 3780
AACGGGGGAT CTGTAATCTC ACATTATCAT CCAACAAGCA ATGGAAATGG GAATAATAAT

3790 3800 3810 3820 3830 3840
CGACATGATA CACCTCAAGT TACTGGAAGG TTAGCAATCT CTATGATAGC ATTTATCAAT

3850 3860 3870 3880 3890 3900
TATTAAAGAA CTCTGGAATT AGTTTTTAAA GTATAAATAA ATCTCTATTT CTTGCGACCT

3910 3920 3930 3940 3950 3960
ACATTGAACT TAATAGTTAT GTTTTACAGA GGATCACTTC ATCGAAACGG GCCACCATCT

3970 3980 3990 4000 4010 4020
CCATTAAACC TTCAAATGAC TACATTTGAT TCGGAGATCC CTCTGACTTT TGATCAGGTG

4030 4040 4050 4060 4070 4080
AGTCTTACAT TGAGTTCAAA CTTTTTGAAT TTAAGCGTTC TATCTGATAA AGTTCTTCGG

4090 4100 4110 4120 4130 4140
TGGTTTTATA ATTTTTGATT CATAAACTTA CCCACTCCTT TCTCACTAAC ATTTTACCCT

4150 4160 4170 4180 4190 4200
GTTCAGCTGC CAGTTTCCAT GGAATCCGAT AGACCCCTGA TTGAAGAGGT AACTGTGAAA

4210 4220 4230 4240 4250 4260
GTAGTCAATT AATTCCCTGT GTTTCTACCC CACTCAATCC TTTTGTATTT TTTGTTCAGT

4270 4280 4290 4300 4310 4320
CTATCCACTA TCAATGTCTT ATCACCTCTA GATACTGTTT AGAAGAAAAT ATTGTTCACA

4330 4340 4350 4360 4370 4380
GTTATGGAAA TCACATATAC TTTGTTCTGG AATTGTATAT GTATGCTTTG AAAAAGCACA

4390 4400 4410 4420 4430 4440
TTAGAATACT ACAAACATTA GTTTCCATCA GATTTTTGAT TTATCAAAAC CGTTATATTA

4450 4460 4470 4480 4490 4500
GACACTCTTA AGTTATCATA TTCTAATTTC CAAGAATGTT ATATTTTGAA GAAGCCGGTG

4510 4520 4530 4540 4550 4560
ATTGTCAAAA AGATTGAAAA CTCCGAGTTT CTATATATGC GAAATTTTCA CTTCAGCCCA

Fig. 7

4570 4580 4590 4600 4610 4620
CACACACACA CACACATTCA CGAAACTTTG TGTTGTTTAT GTTACTTATA TGTTATCTTT

4630 4640 4650 4660 4670 4680
TCTGTCTGAT CATGGTTTTC GGACTGAAAT TGTGTTAATC GGAAGTTATA TGTGAGCCAC

4690 4700 4710 4720 4730 4740
ATTGATTAAA CCTGTGAGAG ATGCCCATTT GTACTCATTT TACGACTGTC TCATGTCCAA

4750 4760 4770 4780 4790 4800
ACACCATGTT TATTGTAATT ACCAGGCTAC TATTTGCAGA TGCGATCAAC ATCACCACCT

4810 4820 4830 4840 4850 4860
CCACCATCTG GATGTCTGGC CAGATTCCAT CCGGAAGCAG TGGACAAATT CTCCATTGTA

4870 4880 4890 4900 4910 4920
GCTTTTCCAT TGGCATTTAC AATGTTTAAT GTTAGTTAAT CCACAGTTAA AAATTCCCAT

4930 4940 4950 4960 4970 4980
AATCATAAAT ATCTCGACTT TTCAGCTTGT CTACTGGTGG CACTATTTGT CTCAAACTTT

4990 5000 5010 5020 5030 5040
CGATCAAAAC TATCAGTGAT TGAAGTTTAT CCCTTTTAAT TCCAATAATT CACAGTTGCC

5050 5060 5070 5080 5090 5100
GGTATCTACC TCCATTCTTT TCCGATGATT CGCAGTTTTT CACAGGGTTC AAATGTATCT

5110 5120 5130 5140 5150 5160
CGTTCAATCT TTTTATGGTT ATTTCTCTTG AATGTCCATT TTAATATTTA TAGAACACTT

5170 5180 5190 5200 5210 5220
TTATGTACAT TGTGTTGGTA TTCAATTCGA AAAACAATGA AATTTATTTC TAAATAACTG

5230 5240 5250 5260 5270 5280
CGTTTCTGGG GTTTCTATCA GCACTTACTA GCTGACAAAA ACTTTTCCGT ATTCGGAATT

5290 5300 5310 5320 5330 5340
AGATTTTTAT GCAAGCAATG TTTCATTTTT ACACAGTATA GTATTTATTC TTACTTTTGA

5350 5360 5370 5380 5390 5400
TTATATTGCT CGCACCCTAA ATGACAGGTA TTAGAAATTA ACCGCTTTTC AGAGTATTTT

5410 5420 5430 5440 5450 5460
TAATCTTCTT AGTACTAGTT TAGTTCTTTA AATAAGAAAC CATCTAGTTT TTCATTATCA

5470 5480 5490 5500 5510 5520
CTCAACTTCA GTCGGACAAA TTTTAAATTT TTTACTCGAT AAAAAAATTT TATAATTCAG

5530 5540 5550
ACAAATTATG TCTTCTCATT TTTGATCGCT

Fig. 7
Page 5

10 20 30 40 50 60
ATGAAGTTTA TTCCTGAAAT CACACTACTC TTGCTTTAT[illegible] TGTACACTC TACACAGGCT

70 80 90 100 110 120
AAAGGAAAAC GACGGAAATG TCCGGAGGGT GCGTGGTCGG AAGGAAAGAT TATGAACACG

130 140 150 160 170 180
ATCATGAGCA ACTACACGAA AATGTTGCCC GACGCGGAGG ACAGCGTACA AGTTAATATT

190 200 210 220 230 240
GAGATTCATG TACAGGATAT GGGAAGCTTG AATGAAATAT CATCCGACTT TGAAATTGAC

250 260 270 280 290 300
ATTTTATTCA CTCAACTGTG GCATGACTCG GCACTTTCTT TTGCTCATCT TCCGGCTTGT

310 320 330 340 350 360
AAGCGAAATA TCACAATGGA AACACGACTT TTACCTAAGA TTTGGTCTCC AAACACGTGT

370 380 390 400 410 420
ATGATTAATT CAAAACGAAC AACCGTCCAT GCATCACCAT CGGAAAATGT GATGGTTATT

430 440 450 460 470 480
CTGTACGAGA ATGGAACAGT CTGGATTAAC CATCGTCTTA GTGTCAAATC ACCTTGCAAT

490 500 510 520 530 540
TTGGATCTGC GACAGTTTCC TTTCGATACT CAAACTTGCA TATTAATCTT TGAATCCTAT

550 560 570 580 590 600
AGTCATAACT CAGAAGAAGT TGAACTTCAT TGGATGGAAG AAGCTGTCAC ATTAATGAAG

610 620 630 640 650 660
CCAATTCAAC TTCCTGACTT TGATATGGTT CATTATTCAA CTAAAAAGGA AACTTTACTC

670 680 690 700 710 720
TATCCAAACG GGTACTGGGA TCAGCTTCAA GTTACTTTCA CTTTCAAACG ACGATATGGA

730 740 750 760 770 780
TTCTATATTA TTCAAGCCTA TGTTCCAACA TATCTTACAA TCATTGTATC TTGGGTTTCA

790 800 810 820 830 840
TTCTGCATGG AACCAAAAGC TCTGCCGGCA AGAACAACTG TCGGAATCTC ATCTCTTCTA

850 860 870 880 890 900
GTTCTTACTT TCCAGTTTGG AAATATTTTG AAAAATCTTC CAAGGGTTTC ATATGTGAAA

910 920 930 940 950 960
GCAATGGATG TGTGGATGCT TGGATGCATA TCATTTGTCT TCGGAACCAT GGTAGAATTG

970 980 990 1000 1010 1020
GCATTTGTTT GTTACATTTC CCGTTGTCAG AACAGCGTAA GAAACGCGGA ACGACGACGG

1030 1040 1050 1060 1070 1080
GAACGAATGA GAAATTCTCA GGTGTGGGCA AACGGATCGT GTAGAACTAG AAGCAACGGG

1090 1100 1110 1120 1130 1140
TATGCAAACG GGGGATCTGT AATCTCACAT TATCATCCAA CAAGCAATGG AAATGGGAAT

Fig. 8

```
      1150        1160        1170        1180        1190        1200
AATAATCGAC ATGATACACC TCAAGTTACT GGAAGAGGAT ACTTCATCG AAACGGGCCA

      1210        1220        1230        1240        1250        1260
CCATCTCCAT TAAACCTTCA AATGACTACA TTTGATTCGG AGATCCCTCT GACTTTTGAT

      1270        1280        1290        1300        1310        1320
CAGCTGCCAG TTTCCATGGA ATCCGATAGA CCCCTGATTG AAGAGATGCG ATCAACATCA

      1330        1340        1350        1360        1370        1380
CCACCTCCAC CATCTGGATG TCTGGCCAGA TTCCATCCGG AAGCAGTGGA CAAATTCTCC

      1390        1400        1410        1420        1430        1440
ATTGTAGCTT TTCCATTGGC ATTTACAATG TTTAATCTTG TCTACTGGTG GCACTATTTG

      1450        1460        1470
TCTCAAACTT TCGATCAAAA CTATCAGTGA
```


Fig. 8
Page 2

Fig. 9a

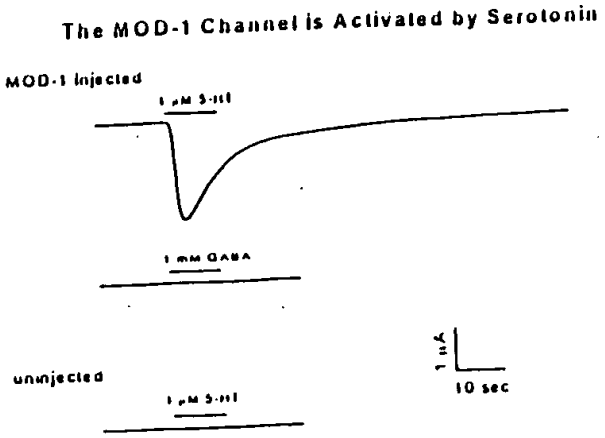


Fig. 9b

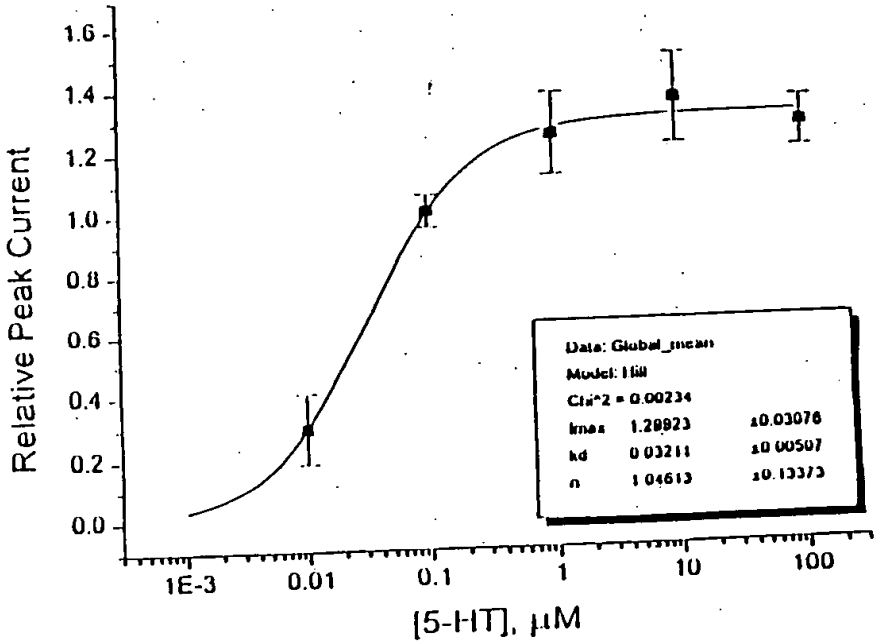


Fig. 9c

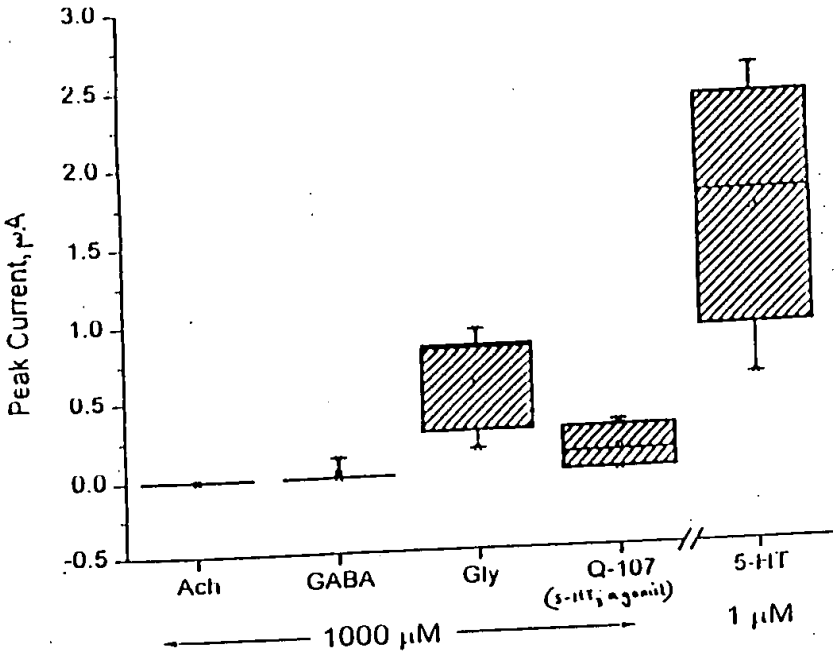


Fig. 9

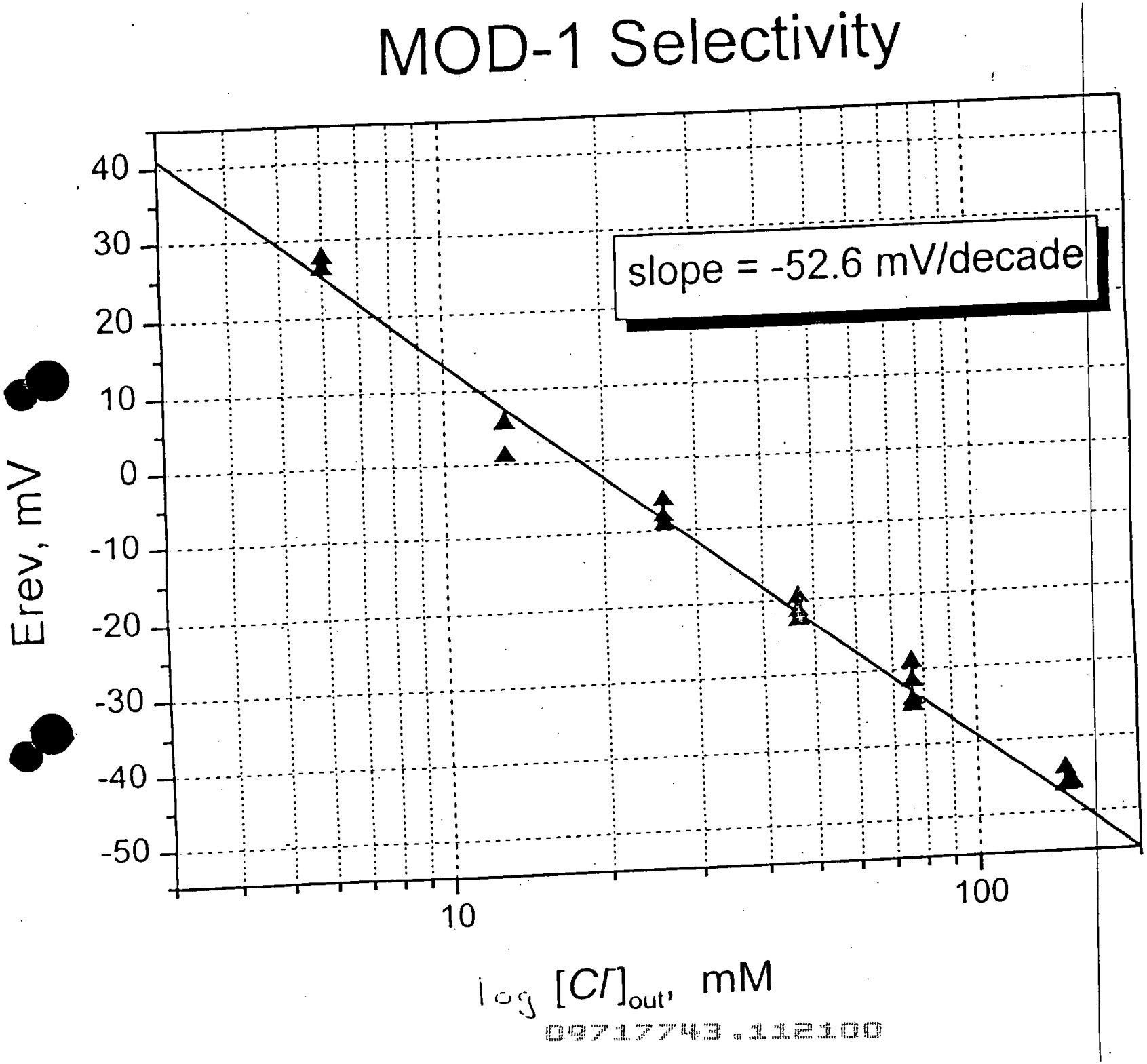


Fig. 10

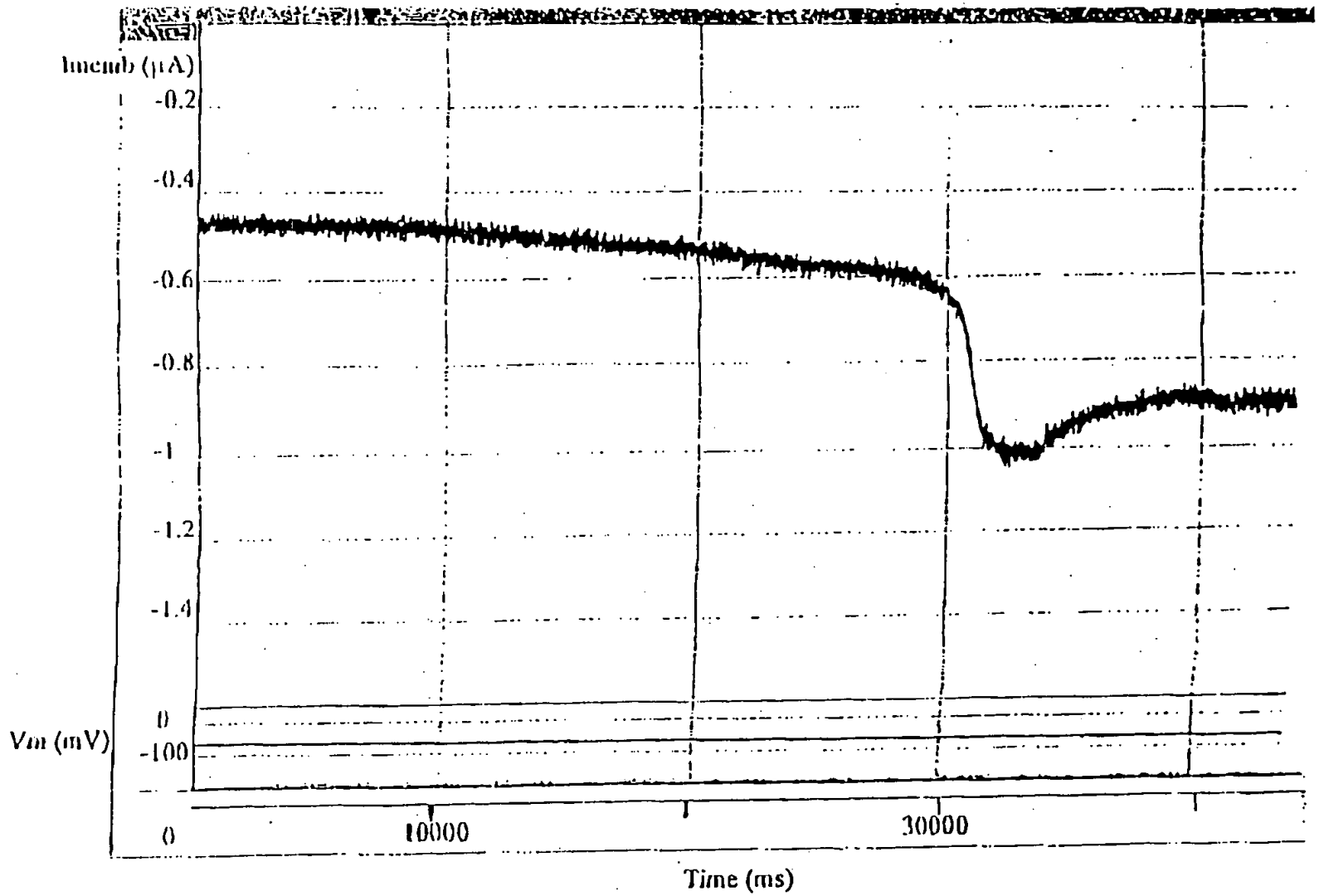
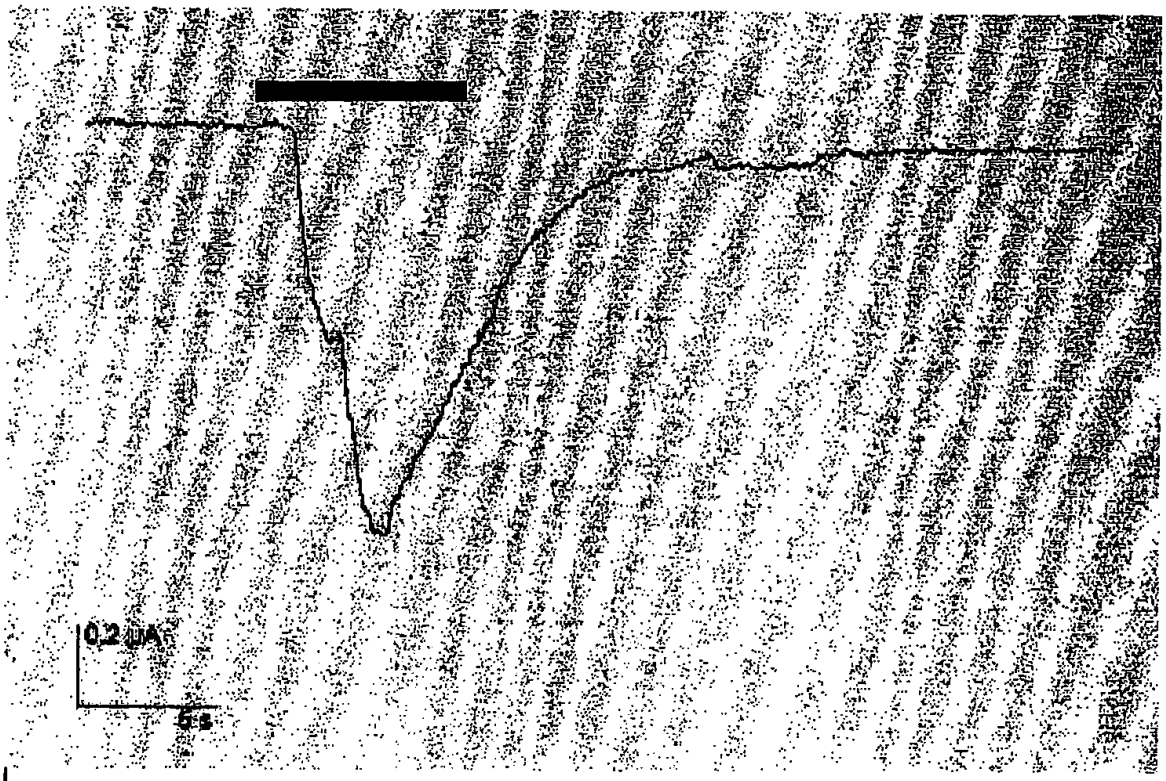


Figure 11

04/01/2000



Oocyte injected with rat cortex poly(A)+ RNA.
Membrane potential -70 mV. 1 μM 5-HT applied (bar)
Oocyte was pretreated with 0.2 mM BAPTA-AM for 2 hours.
The bath solution contained 2 mM Co^{2+} to block 5-HT3a responses.

Fig. 12